Section 9 Outreach and Education Component

9.0 Overview

Education is the foundation of any successful Urban Runoff Management Plan. It is imperative that the public and City employees understand how storm water pollution impacts water quality. The City of Carlsbad is revising and updating its Outreach and Education Plan to meet the Education Component (F.4) of the Permit. This section discusses Permit requirements that apply to the *Outreach and Education Component* of the Jurisdictional Urban Runoff Management Plan (JURMP) and methodologies that will be employed to accomplish outreach and education for each of the targeted communities. This section meets or exceeds minimum requirements as specified in Section F.4 of the Permit. The following subsections address short and long-term efforts by the City including all outreach and education activities and how the City of Carlsbad will maximize its efforts in order to provide a benefit to receiving water quality:

- Municipal Department and Personnel (Section 9.1)
- Construction Site Owners and Developers (Section 9.2)
- Industrial Owners and Operators (Section 9.3)
- Commercial Owners and Operators (Section 9.4)
- Residential Community, General Public, and School Children (Section 9.5)
- Quasi-Government Agencies/Districts (i.e., educational institutions, waters districts, sanitation districts, etc.) (Section 9.6)

Subsections 9.1 through 9.6 briefly summarize the purpose of the subsection, quote the applicable regulatory requirements from Sections F and H of the Permit (*italicized*), and list the City's action plan. The rest of the subsection outlines in detail each action and describes the specific actions that have been completed, are in progress, or are projected by the City of Carlsbad to meet or exceed that Permit requirement. Each subsection in this chapter is designed as a "stand-alone" document.

The ultimate goal of the City's Storm Water Protection Program is to improve Regional water quality and minimize storm water runoff pollution at the "source". With proper preventive measures in place the treatment or other structural controls of storm water runoff are unnecessary or minimized.

The City will attempt to achieve this outreach and education goal by implementing a systematic approach that increases knowledge, opportunity, and awareness of pollution prevention measures. Targeted audiences will be educated using a variety of outreach methods to progressively achieve the key stages of awareness and ownership of storm water runoff pollution and prevention practices by using "Best Management Practices" (BMP's).

The outreach and education strategy includes short and long-term efforts aimed at achieving proactive implementation of BMPs in daily activities and operations. Short and long-term strategies are applicable to all six targeted audiences listed above, yet in recognition of high priorities and other factors, specific focus can be placed as follows:

<u>Short-term strategy</u>: To achieve maximum awareness, opportunity, and knowledge of information related to specific activities that can lead to long-term storm water protection.

- 1) Educate Municipal Departments and Personnel;
- 2) Distribute BMP information to responsible parties for "High Priority" activities and operations in Construction, Industrial, Commercial and Residential areas; and
- 3) Obtain baseline measurements of success indicators (awareness, knowledge, attitude, skills/abilities, and behavior)

<u>Long-term strategy</u>: To maintain and provide current information and data that supports the benefit to water quality or environmental health from the increased awareness, opportunity, and knowledge of BMPs in daily operations. Emphasize:

- 1) Maintaining general awareness of storm water protection;
- 2) Actively updating and implementing BMPs for "High Priority" activities and operations for Construction, Industrial, Commercial and Residential audiences; and
- 3) Reassess success indicators (awareness, knowledge, attitude, skills/abilities, and behavior)

The purpose of this document is to address Jurisdictional and local efforts in outreach and education. The City of Carlsbad has increased this effort and made significant advances in this component starting as early as May 2001. The City will continue this effort as part of an overall strategy to increase outreach at the Watershed and Regional levels. The City of Carlsbad is also an active participant in the Carlsbad Watershed Outreach Team initiated in October 2001. The outreach team consists of six other North San Diego County cities including San Marcos, Vista, Del Mar, Solana Beach, Escondido, Oceanside, and Encinitas and the County of San Diego (Watershed Copermittees).

Outreach and education at the watershed level and cooperative partnerships with the Watershed Copermitees is an integral part of Permit. The City of Carlsbad supports regional efforts that provide cost effective opportunities to reach larger audiences with general messages and information.

Outreach and education effectiveness will be measured for both the short and long-term goals of the program, which are to:

- 1) Raise general awareness and increase specific knowledge;
- 2) Provide opportunities for audiences to learn about and implement BMPs; and
- 3) Foster an understanding among targeted audiences on how to incorporate BMPs in daily activities.

The City of Carlsbad along with the Watershed Copermittees participated in the North San Diego County Storm Water Public Awareness Survey during November-December 2001 (report date is January 2002). This baseline survey attempted to measure basic indicators of awareness and knowledge of storm water runoff pollution and associated BMPs. Survey results are currently being analyzed by the City and Watershed Copermittees to identify and prioritize educational topics at the local/jurisdictional and watershed level. The survey results will further refine and direct the short and long-term efforts in outreach and education for the City of Carlsbad.

The data collected from the Baseline survey and future surveys will be used in preparing the Annual Report and conducting Assessment/Evaluation of the JURMP (as outlined in Section 11).

9.1 Municipal Department and Personnel

9.1.1 Purpose and Permit Requirements

Purpose

The purpose of this Permit requirement is to educate target audiences and the municipal workforce on topics aimed at preventing or reducing pollutants from entering the storm drain system.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirement under the Education Component is as follows: Section F.4.a.

At a minimum the Education Program for each target audience shall contain information on the following topics where applicable:

- State and Federal water quality laws
- Requirements of local municipal permits and ordinances (e.g., storm water and grading ordinances and permits)
- Impacts of urban runoff on receiving waters
- Watershed concepts (i.e., stewardship, connection between inland activities and coastal problems, etc.)
- Distinction between MS4s and sanitary sewers
- Importance of good housekeeping (e.g., sweeping impervious surfaces instead of hosing)
- Pollution prevention and safe alternatives
- Household hazardous waste collection
- Recycling
- BMPs: Site specific, structural and source control
- BMP maintenance
- Non-storm water disposal alternatives (e.g., all wash waters)
- Pet and animal waste disposal
- Proper solid waste disposal (e.g., garbage, tires, appliances, furniture, vehicles)
- Equipment and vehicle maintenance and repair
- Public reporting mechanisms
- Green waste disposal
- Integrated pest management
- Native vegetation
- Proper disposal of boat and recreational vehicle waste
- Traffic reduction, alternative fuel use
- Water conservation

Section F.4.b.

In addition to the topics listed in F.4.a, the Municipal, Construction, Industrial, Commercial, and Quasi-Governmental (Educational Institutions, Water Districts, Sanitation Districts) Communities shall also be educated on the following topics where applicable:

- Basic urban runoff training for all personnel
- Additional urban runoff training for appropriate personnel
- Illicit Discharge Detection and Elimination observations and follow-up during daily work activities

- Lawful disposal of catchbasin and other MS4 cleanout wastes
- Water quality awareness for Emergency/First Responders
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction).
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
- SDRWQCB's General NPDES Permit for Groundwater Dewatering
- 401 Water Quality Certification by the SDRWQCB
- Statewide General NPDES Utility Vault Permit (NPDES No. CAG990002)
- SDRWQCB Waste Discharge Requirements for Dredging Activities
- Local requirements beyond statewide general permits
- Federal, state and local water quality regulations that affect development projects
- Water quality impacts associated with land development
- Alternative materials & designs to maintain peak runoff values
- How to conduct a storm water inspection
- Potable water discharges to the MS4
- *Dechlorination techniques*
- *Hydrostatic testing*
- Spill response, containment, & recovery
- Preventive maintenance
- How to do your job and protect water quality

Jurisdictional URMP Requirements

The Permit requirement under the Education Component for all Targeted Communities is as follows:

Section H.a.(6)

A description of the content, form, and frequency of education efforts for each target community.

- Conduct initial informational training for all City staff, both permanent and temporary, to cover general storm water runoff topics and permit requirements.
- 2) Develop and implement a training program for City staff on the requirements of the urban runoff management program as it applies to the specific activities for each job classification.
- 3) Distribute outreach and education materials to employees.
- 4) Publish bulletins in newsletters, announcements, newspapers, and other materials readily available to employees.
- 5) Maintain the City's Internet and Intranet website to provide employees with additional resources.

9.1.2 Action Plan

<u>Action #1</u> - Conduct initial informational training for all City staff, both permanent and temporary, to cover general storm water runoff topics and permit requirements.

The City's Environmental Division, which is responsible for implementation of the Storm Water Protection Program, initiated staff training on May 22, 2001, to inform employees of the new Municipal Storm Water Permit (Order No. 2001-01) requirements. In addition, the City established the Storm Water Protection Outreach Team in July 2001 to develop outreach and education materials to meet compliance with the Permit.

The Storm Water Protection Outreach Team is comprised of members from the Public Works Department including Administration, Engineering Services, Operations and Maintenance, and Environmental. This diverse team is responsible for all outreach, educational programs, and training.

Outreach efforts have been conducted using a Power Point presentation prepared by City staff. Presentations have been made at a variety of regularly scheduled staff meetings, as well as, specially scheduled meetings to increase attendance. The Environmental staff has trained 302 employees, through January 2002, which is approximately, 32 percent of the City's workforce. Several departments have attended these training sessions including Public Works, Fire Services, Administrative Services, Planning, and the City Manager's Office. Informational training to cover general storm water runoff topics and permit requirements is planned as a continuous effort and will include direct training, such as described above. Other methods for providing training are described in this Action Plan.

New employees will be trained on storm water runoff as part of their general introduction to City of Carlsbad government operations and services. Several methods are being considered to accomplish this, including: Storm Water Briefing during "Experience Carlsbad" – a day-long introductory program sponsored by the Human Resources Department for all new permanent employees.

General informational training is targeted at 70 percent of all City staff by the end of the first reporting period from July 2001 through June 2002. The City is well underway to meet this audience target with 32 percent completed as of January 2002.

<u>Action #2</u> - Develop and implement a training program for City staff on the requirements of the urban runoff management program as it applies to the specific activities for each job classification.

Development of a training program for specific activities within job classifications is planned as part of the Municipal component of this JURMP (Section 2.1.2 – Action #2). The City will develop the proposed training plan and modify it as needed. Staff have identified within departments that work in and around municipal facilities and require activity/job specific training. For example (not all inclusive) the following departments have been identified as needing specific activity training:

- Fire Department staff BMPs for non-emergency fire fighting activities and other operations (Non-Emergency Fire Fighting Component in Section # 13).
- Construction Inspection staff BMPs for construction, erosion, and grading activities, inspection procedures, enforcement, report writing, and sampling and testing protocols.
- Environmental Specialists Inspection procedures, BMPs for industrial, commercial, municipal and residential sectors, enforcement, report writing, and sampling and testing protocols.
- Planning Department staff Design standards, BMPs for various phases of projects, and SWPPP requirements.

The objectives of the City's employee training program are:

- Promote a clear understanding of the urban runoff and water quality issues, including activities that can potentially pollute receiving water bodies;
- Identify and implement strategies for BMPs;
- Promote employee ownership of the problems and their ability to apply solutions; and
- Integrate employee feedback into training and BMP implementation.

Job specific training is targeted at 20 percent of applicable City staff by the end of the first reporting year (July 1, 2001-June 30, 2002) on January 31, 2003, 80 percent for the second year, and 90 percent for subsequent years. The 90 percent target allows flexibility to train and introduce new and promoted employees to the new BMPs or modified procedures during the course of the reporting year, especially if modifications are incorporated late in the reporting year and training is planned for the following year.

Action #3 - Distribute outreach and education materials to employees.

BMP booklets, fact sheets and other literature prepared for public dissemination is made available to City staff prior to general distribution. Employees generally receive Storm Water Protection BMP booklets or other relevant fact sheets with paycheck distribution. All Storm Water Protection Program outreach materials will be distributed to City employees in this manner.

A total of 1,900 BMP booklets titled "Motor Oil" and "Car Washing" were distributed to City staff between July 1, 2001, and December 30, 2001. In addition, 22,000 copies of the "Motor Oil" BMP booklets were mailed to Carlsbad residents as an insert with the November 2001 water bill. The Program plans to design and distribute at least four additional BMP booklets for topics such as "Pet Waste", "Lawn and Garden Care", "Auto Repair" and "Impervious Surface Cleaning".

City employees and residents are continuously reminded, through these efforts, about the City's Storm Water HOT Line phone number and webpage, so that information is readily available.

<u>Action #4</u> - Publish bulletins in newsletters, announcements, newspapers, and other materials readily available to employees.

General storm water runoff information and BMPs are published in the City's departmental newsletters, on promotional items, in factsheets and brochures, and on the Internet. All outreach and education materials include the City's Storm Water HOT Line phone number, website, web email address, and other pertinent contact information.

<u>Action #5</u> - Maintain the City's Internet and Intranet website to provide employees with additional resources.

In December 2001, the City introduced a new website dedicated specifically to the Storm Water Protection Program. The new and innovative website includes information employees and the public can access through Internet and Intranet browsers (employees only). The website includes all existing, published BMP booklets and information about booklets proposed or under development by the Storm Water Protection Program. All materials are properly formatted and can be easily downloaded by most personal computer users.

The Internet web site will be expanded to include other educational materials including brochures, fact sheets, and Storm Water Protection procedures for Carlsbad. The Storm Water Protection Outreach Team and the

City's Information Technology Department are responsible for developing, maintaining, and keeping the information on the webpage current.

The City plans to make all BMP brochures and other fact sheets available on the Internet web site shortly after final approval by the Outreach Team.

9.2 Construction Site Owners and Developers

9.2.1 Purpose and Permit Requirements

Purpose

The purpose of this Permit requirement is to educate this target audience on topics aimed at preventing or reducing pollutants from entering the storm drain system through the use of BMP's and meet the requirements of the Permit and local ordinances.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirement under the Education Component is as follows: Section F.2.j. Education Focused on Construction Activities (Construction)

(1) Internal: Municipal Staff

Each Copermittee shall implement an education program to ensure that its construction, building, and grading review staffs and inspectors have an understanding of:

- (a) Federal, state, and local water quality laws and regulations applicable to construction and grading activities.
- (b) The connection between construction activities and water quality impacts (i.e., impacts from land development and urbanization).
- (c) How erosion can be prevented.
- (d) How impacts to receiving water quality resulting from construction activities can be minimized (i.e., through implementation of various source control and structural BMPs).
- (e) Applicable topics listed in section F.4. of this Order.
- (2) <u>External: Project Applicants, Contractors, Developers, Property Owners, and other Responsible Parties.</u>

Each Copermittee shall implement an education program to ensure that project applicants, contractors, developers, property owners, and other responsible parties have an understanding of the topics outlined in section F.2.j.1. above of this Order.

Section F.4.a.

At a minimum the Education Program for each target audience shall contain information on the following topics where applicable:

- State and Federal water quality laws
- Requirements of local municipal permits and ordinances (e.g., storm water and grading ordinances and permits)
- *Impacts of urban runoff on receiving waters*
- Watershed concepts (i.e., stewardship, connection between inland activities and coastal problems, etc.)
- Distinction between MS4s and sanitary sewers
- Importance of good housekeeping (e.g., sweeping impervious surfaces instead of hosing)
- Pollution prevention and safe alternatives
- Household hazardous waste collection
- Recycling
- BMPs: Site specific, structural and source control

- BMP maintenance
- Non-storm water disposal alternatives (e.g., all wash waters)
- Pet and animal waste disposal
- Proper solid waste disposal (e.g., garbage, tires, appliances, furniture, vehicles)
- Equipment and vehicle maintenance and repair
- Public reporting mechanisms
- Green waste disposal
- Integrated pest management
- Native vegetation
- Proper disposal of boat and recreational vehicle waste
- Traffic reduction, alternative fuel use
- Water conservation

Section F.4.b.

In addition to the topics listed in F.4.a. above, the Municipal, Construction, Industrial, Commercial, and Quasi-Governmental (Educational Institutions, Water Districts, Sanitation Districts) Communities shall also be educated on the following topics where applicable:

- Basic urban runoff training for all personnel
- Additional urban runoff training for appropriate personnel
- Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
- Lawful disposal of catchbasin and other MS4 cleanout wastes
- Water quality awareness for Emergency/First Responders
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction).
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
- SDRWQCB's General NPDES Permit for Groundwater Dewatering
- 401 Water Quality Certification by the SDRWQCB
- Statewide General NPDES Utility Vault Permit (NPDES No. CAG990002)
- SDRWQCB Waste Discharge Requirements for Dredging Activities
- Local requirements beyond statewide general permits
- Federal, state and local water quality regulations that affect development projects
- Water quality impacts associated with land development
- Alternative materials & designs to maintain peak runoff values
- How to conduct a storm water inspection
- Potable water discharges to the MS4
- Dechlorination techniques
- Hydrostatic testing
- Spill response, containment, & recovery
- Preventive maintenance
- How to do your job and protect water quality

Jurisdictional URMP Requirements

The Permit requirement under the Municipal Component for Source Identification is as follows:

Section H.a.(6)

A description of the content, form, and frequency of education efforts for each target community.

- 1) Conduct initial informational training for all City staff involved with planning and construction to cover general storm water runoff topics and permit requirements.
- 2) Specific training for City staff will be customized by job classification and incorporated into routine staff meetings.
- 3) Publish bulletins in newsletters, announcements, newspapers, and other materials readily available to Project Applicants, Contractors, Inspectors, Developers, Property Owners, and Community Planning Groups (construction site owners and developers).
- 4) Distribute informational literature, standards, procedures and policies to construction site owners and developers.
- 5) Maintain the City's Internet website to provide construction site owners and developers with necessary documents, standards, and other resources to comply with all storm water requirements.
- 6) As needed, offer information on training workshops or conduct training workshops for construction site owners and developers.

9.2.2 Actions Plan

<u>Action #1</u> - Conduct initial informational training for all City staff involved with planning and construction to cover general storm water runoff topics and permit requirements.

The City's Environmental Division, which is responsible for implementation of the Storm Water Protection Program, initiated staff training on May 22, 2001, to inform employees of the new Municipal Storm Water Permit (Order No. 2001-01) requirements. In addition, the City established the Storm Water Protection Outreach Team in July 2001 to develop outreach and education materials to meet compliance with the Permit.

The Storm Water Protection Outreach Team is comprised of members from the Public Works Department including Administration, Engineering Services, Operations and Maintenance, and Environmental. This diverse team is responsible for the present and future outreach, educational programs, and training.

Outreach efforts have been conducted using a Power Point presentation prepared by City staff. Presentations have been made at a variety of regularly scheduled staff meetings, as well as, specially scheduled meetings to increase attendance. The Environmental staff has trained 302 employees, through January 2002, which is approximately 32 percent of the City's workforce. Several departments have attended these training sessions including Public Works, Fire Services, Administrative Services, Planning, and the City Manager's Office.

Informational training to cover general storm water runoff topics and permit requirements is planned as a continuous effort and will include direct training, such as described above. Other methods to provide training are described in this Action Plan.

<u>Action #2</u> - Specific training for City staff associated with planning and construction will be customized by job classification and incorporated into routine staff meetings.

Training on specific topics will be conducted during biweekly staff meetings (or other frequency as established by the section or manager). Training takes place as part of "case reviews" conducted by the lead inspector and/or the supervisor during staff meetings.

"Case reviews" typically include review and discussion of projects that present unusual or challenging circumstances. Staff reviews details of the SWPPP or BMPs that may present difficulties, problems or have proven to be more successful than anticipated. The process of sharing field and practical experience expands the skills and knowledge of the City staff. Some "case reviews" may involve finding alternative solutions or recommendations for projects that present new challenges to staff.

City staff involved in planning, development, construction, and inspection activities may also need additional training offered by professional organizations, educational institutions, and other government agencies.

$\underline{\text{Action } \#3}$ - Publish bulletins in newsletters, announcements, newspapers and other materials available to construction site owners and developers.

General storm water runoff information and BMPs are published in the City's departmental newsletters, on promotional items, in factsheets and brochures, and on the Internet. All outreach and education materials include the City's Storm Water HOT Line phone number, website, web email address, and other pertinent contact information.

<u>Action #4</u> - Distribute informational literature, standards, procedures and policies to construction site owners and developers.

Informational literature containing standards, procedures, policies and other information relevant to development, planning and construction SWPPs and BMPs will be made available to construction site owners and developers. Outreach and education materials will be made readily available to ensure that all interested parties have access to the appropriate information.

<u>Action #5</u> - Maintain the City's Internet website to provide construction site owners and developers with necessary documents, standards, and other resources to comply with all storm water requirements.

The Storm Water Outreach Team will consider adding certain documents, standards, BMPs, and other resources available to external customers as part of phase 3 of upgrades to the City's Storm Water Internet page. Phase 3 of the web page upgrades are planned for the Fall 2002, just prior to the rainy season.

<u>Action #6</u> - As needed, offer information on training workshops or conduct training workshops for construction site owners and developers.

Training workshops and meetings with Project Applicants, Inspectors, Contractors, Developers, Property Owners, and Community Planning Groups may be conducted at the Watershed or Regional level, when needed. Developers and property owners, in general, will receive site specific and case-by-case information during scheduled meetings with City staff. If a specific need or topic is more appropriate for a local workshop, City staff will organize and publicize these meeting as needed.

9.3 Industrial Owners and Operators

9.3.1 Purpose and Permit Requirements

Purpose

The purpose of this Permit requirement is to educate this target audience on topics aimed at preventing or reducing pollutants from entering the storm drain system and meet the requirements of the permit and local ordinance.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirement under the Education Component is as follows: Section F.4.a.

At a minimum the Education Program for each target audience shall contain information on the following topics where applicable:

- State and Federal water quality laws
- Requirements of local municipal permits and ordinances (e.g., storm water and grading ordinances and permits)
- Impacts of urban runoff on receiving waters
- Watershed concepts (i.e., stewardship, connection between inland activities and coastal problems, etc.)
- Distinction between MS4s and sanitary sewers
- Importance of good housekeeping (e.g., sweeping impervious surfaces instead of hosing)
- Pollution prevention and safe alternatives
- Household hazardous waste collection
- Recycling
- BMPs: Site specific, structural and source control
- BMP maintenance
- *Non-storm water disposal alternatives (e.g., all wash waters)*
- Pet and animal waste disposal
- Proper solid waste disposal (e.g., garbage, tires, appliances, furniture, vehicles)
- Equipment and vehicle maintenance and repair
- Public reporting mechanisms
- Green waste disposal
- Integrated pest management
- Native vegetation
- Proper disposal of boat and recreational vehicle waste
- Traffic reduction, alternative fuel use
- Water conservation

Section F.4.b.

In addition to the topics listed in F.4.a. above, the Municipal, Construction, Industrial, Commercial, and Quasi-Governmental (Educational Institutions, Water Districts, Sanitation Districts) Communities shall also be educated on the following topics where applicable:

- Basic urban runoff training for all personnel
- Additional urban runoff training for appropriate personnel
- Illicit Discharge Detection and Elimination observations and follow-up during daily work activities

- Lawful disposal of catchbasin and other MS4 cleanout wastes
- Water quality awareness for Emergency/First Responders
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction).
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
- SDRWQCB's General NPDES Permit for Groundwater Dewatering
- 401 Water Quality Certification by the SDRWQCB
- Statewide General NPDES Utility Vault Permit (NPDES No. CAG990002)
- SDRWQCB Waste Discharge Requirements for Dredging Activities
- Local requirements beyond statewide general permits
- Federal, state and local water quality regulations that affect development projects
- Water quality impacts associated with land development
- Alternative materials & designs to maintain peak runoff values
- How to conduct a storm water inspection
- Potable water discharges to the MS4
- *Dechlorination techniques*
- Hydrostatic testing
- Spill response, containment, & recovery
- Preventive maintenance
- *How to do your job and protect water quality*

Jurisdictional URMP Requirements

The Permit requirement under the Education Component for all Targeted Communities is as follows:

Section H.a.(6)

A description of the content, form, and frequency of education efforts for each target community.

- 1) Industry representatives will receive general storm water education through informational letters, association newsletters, and other outreach materials.
- 2) Industry specific BMP information may be developed, as needed, for specific audiences selected by SIC code or identified by other methods.
- 3) Industry representatives will be given specific BMP information and general storm water education during site visits and inspections.

9.3.2 Action Plan

<u>Action #1</u> - Industry representatives will receive general storm water education through informational letters, association newsletters, and other outreach materials.

The City has prioritized all industrial businesses (see Industrial Component in Section 3) for inspection and will provide general storm water information in a variety of formats and media. The City will prioritize industrial groups through database lists, contacts with business and trade associations, and industry newsletters and bulletins. The City has already distributed Storm Water Ordinance revision notices to industrial business via postcards and flyers in December 2001. Other efforts will include distribution of information about general permit requirements, BMPs, SWPPPs, and other relevant information during the Storm Water Industrial Facility inspections.

Workshops, training sessions, and meetings organized by the City and/or the Watershed Copermitees for industry groups, is also an effective means of providing storm water information. On September 25, 2001, the Storm Water Program Manager gave a presentation on the requirements of the Municipal Storm Water Permit at the CAER group of the Industrial Environmental Association meeting in Carlsbad. The information and presentation were well received.

<u>Action #2</u> - Industry specific BMP information may be developed, as needed, for specific audiences selected by SIC code or identified by other methods.

In June 2001, the City of Carlsbad, in coordination with D-Max Engineering, finalized the City's "Model Storm Water Pollution Prevention Plan for Car Dealerships and Auto Repair Shops." A workshop was conducted by the Storm Water Protection Program for Carlsbad automotive dealerships to introduce the new requirements of the Municipal Storm Water Permit. Preparation of SWPPPs, BMPs and other related subjects were also discussed during the workshop. The Storm Water Protection Program was successful in introducing this "High Priority" industry group to the Program. The workshop was followed by a series of advisory inspections to further educate this industry sector.

The City of Carlsbad will follow this proactive approach of focused and targeted educational workshops with facility inspections to address site specific needs and customize BMPs or SWPPPs (where needed) that address specific issues at each facility.

Similar workshops may be planned as industries and issues are identified. If large numbers of common industries do not exist or workshops are not feasible, outreach and education will be performed as described in Action #3 below.

As noted above, the City will develop business or activity specific BMP booklets or guidance, if the grouping approach provides the most effective and efficient means of informing and educating a particular industry type. The City's "Model Storm Water Pollution Prevention Plan for Car Dealerships and Auto Repair Shops" is an example of that approach. As part of the inspection program, the City will analyze the feasibility of grouping industries for the purpose of developing industry specific BMP information; this effort will also be reviewed at the Watershed level to identify opportunities that may not be available at the local level.

Industry personnel will be trained to understand the requirements of the SWPPP or the BMPs for the activities at each facility. City staff will verify that such training is implemented and conducted as required. This verification will be a standard practice during scheduled site inspections.

<u>Action #3</u> - Industry representatives will be given specific BMP information and general storm water education during site visits and inspections.

Materials will be distributed to industrial facility representatives during the advisory inspection phase of the program. The materials may include existing BMPs from the California Storm Water Best Management Handbooks (1993), County of San Diego Guidance Documents, California Department of Transportation Statewide Storm Water Management Plan, and other related materials.

In some cases, industries may be required to develop a SWPPP with specific BMPs that address specific storm water issues identified during the site inspections. Selection of BMPs will be made by the industry or industry contractors/consultants with verification of implementation and effectiveness of BMP's performed by the industry. City staff will also verify the implementation and effectiveness of BMPs during follow-up inspections.

Industry employees will be trained to understand the requirements of the SWPPP and/or BMPs for activities at each facility. City staff will also verify that such training is implemented and conducted as required. This verification will be a standard practice during scheduled site inspections. On occasion, City staff may organize and conduct, on-site training sessions for larger industrial facilities.

9.4 Commercial Owners and Operators

9.4.1 Purpose and Permit Requirements

Purpose

The purpose of this Permit requirement is to educate this target audience on topics aimed at preventing or reducing pollutants from entering the storm drain system.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirement under the Education Component is as follows: Section F.4.a.

At a minimum the Education Program for each target audience shall contain information on the following topics where applicable:

- State and Federal water quality laws
- Requirements of local municipal permits and ordinances (e.g., storm water and grading ordinances and permits)
- *Impacts of urban runoff on receiving waters*
- Watershed concepts (i.e., stewardship, connection between inland activities and coastal problems, etc.)
- Distinction between MS4s and sanitary sewers
- Importance of good housekeeping (e.g., sweeping impervious surfaces instead of hosing)
- Pollution prevention and safe alternatives
- Household hazardous waste collection
- Recycling
- BMPs: Site specific, structural and source control
- *BMP maintenance*
- Non-storm water disposal alternatives (e.g., all wash waters)
- Pet and animal waste disposal
- Proper solid waste disposal (e.g., garbage, tires, appliances, furniture, vehicles)
- Equipment and vehicle maintenance and repair
- Public reporting mechanisms
- Green waste disposal
- Integrated pest management
- Native vegetation
- Proper disposal of boat and recreational vehicle waste
- Traffic reduction, alternative fuel use
- Water conservation

Section F.4.b.

In addition to the topics listed in F.4.a. above, the Municipal, Construction, Industrial, Commercial, and Quasi-Governmental (Educational Institutions, Water Districts, Sanitation Districts) Communities shall also be educated on the following topics where applicable:

- Basic urban runoff training for all personnel
- Additional urban runoff training for appropriate personnel
- Illicit Discharge Detection and Elimination observations and follow-up during daily work activities

- Lawful disposal of catchbasin and other MS4 cleanout wastes
- Water quality awareness for Emergency/First Responders
- California's Statewide General NPDES Permit for Storm Water Discharges
- Associated with Industrial Activities (Except Construction).
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
- SDRWQCB's General NPDES Permit for Groundwater Dewatering
- 401 Water Quality Certification by the SDRWQCB
- Statewide General NPDES Utility Vault Permit (NPDES No. CAG990002)
- SDRWQCB Waste Discharge Requirements for Dredging Activities
- Local requirements beyond statewide general permits
- Federal, state and local water quality regulations that affect development projects
- Water quality impacts associated with land development
- Alternative materials & designs to maintain peak runoff values
- How to conduct a storm water inspection
- Potable water discharges to the MS4
- Dechlorination techniques
- Hydrostatic testing
- Spill response, containment, & recovery
- Preventive maintenance

How to do your job and protect water quality

Jurisdictional URMP Requirements

The Permit requirement under the Education Component for all Targeted Communities is as follows:

Section H.a.(6)

A description of the content, form, and frequency of education efforts for each target community.

- 1) Commercial business representatives will receive general storm water education through informational letters, association newsletters, and other general outreach media.
- 2) Specific BMP information will be developed for commercial businesses, as needed, for specific topics selected by SIC code or other identified industry groups.
- Commercial business representatives will be given specific BMP information and general storm water education during site visits and inspections.

9.4.2 Actions

<u>Action #1</u> – Commercial business representatives will receive general storm water education through informational letters, association newsletters, and other general outreach media.

The City has prioritized all commercial groups (see Commercial Component in Section 4) for inspection and will provide general storm water information in a variety of formats and media. The City will provide general information to "High Priority" commercial groups through database lists, contacts with business and trade associations, and commercial newsletters and bulletins. In addition to working on new information materials, the City distributed Storm Water Ordinance revision notices to commercial businesses in December 2001. Other efforts will include distribution of information about general permit requirements, BMPs, SWPPPs, and other relevant information during the Storm Water Industrial Facility inspections.

Workshops, training sessions, and meetings organized by the City and/or the Watershed Copermitees for commercial businesses, is also an effective means of providing storm water information. The Storm Water Protection Program staff has conducted several presentations on the requirements of the Municipal Storm Water Permit for a variety of commercial business groups including The Carlsbad Chamber of Commerce and the Carlsbad Village Business Association.

In October 2001, the City of Carlsbad finalized the City's "Restaurant Best Management Practices" booklet, in both English and Spanish. A workshop was held by the Storm Water Protection Program for Carlsbad restaurants to introduce the new requirements of the Municipal Storm Water Permit, restaurant specific BMPs, employee training and education, and other related topics. The program, combined with advisory inspections, has been very successful in introducing this "High Priority" commercial group to the Program. The City of Carlsbad will follow this general approach with focused, targeted educational workshops and group meetings, and facility inspections to customize BMPs or SWPPPs (where needed) for specific issues at each facility.

Local commercial business workshops are planned through the end of this reporting year (July 2001- June 2002) and will include:

- 1) Additional workshop sessions for restaurants;
- 2) First phase of workshops for auto repair facilities;

Workshops are planned to address landscaping contractors, pool and spa contractors, impervious surface cleaning contractors, commercial vehicle washing, and other commercial business that may impact storm water quality.

<u>Action #2</u> – Specific BMP information will be developed for commercial businesses, as needed, for specific topics s selected by SIC code or other identified industry groups.

As noted above, the City will develop BMP booklets or guidance for specific activities that may impact receiving water qualityy, if the grouping approach provides the most effective and efficient means of educating a particular business type. The City's "Restaurant Best Management Practices" booklet is an example of that approach. As part of the inspection program, the City will analyze the feasibility of grouping commercial businesses for the purpose of developing activity specific BMP information; this effort will also be reviewed at the Watershed level to identify opportunities that may not be available at the local level. Commercial business personnel will be trained to understand the requirements of the BMPs for the activities at each facility. City staff will also verify that such training is implemented and conducted as required. This verification will be a standard practice during scheduled high priority commercial site inspections.

The City of Carlsbad will follow this proactive approach of focused and targeted educational workshops with facility inspections to address site specific needs and customize BMPs or SWPPPs (where needed) that address specific issues at each facility.

<u>Action #3</u> – Commercial business representatives will be given specific BMP information and general storm water education during site visits and inspections.

Materials will be distributed to commercial facility representatives during the advisory inspection phase of the program. The materials may include, existing BMPs from the City of Carlsbad BMP booklets, Regional BMP booklets (as produced by the County of San Diego or other cities), the California Storm Water Best Management Handbooks (1993), County of San Diego Guidance Documents, California Department of Transportation Statewide Storm Water Management Plan, and other storm water related materials.

In some cases, commercial businesses may be required to develop a SWPPP with specific BMPs that address specific storm water issues identified during the site inspections. Selection of BMPs will be made by the business or business contractors/consultants with verification of implementation and effectiveness of BMP's performed by the industry. City staff will also verify the implementation and effectiveness of BMPs during follow-up inspections.

Commercial business will be trained to understand the requirements of the SWPPP and/or BMPs for the activities at each facility. City staff will also verify that such training is implemented and conducted as required. This verification will be a standard practice during scheduled site inspections. On occasion, City staff may organize and conduct, on-site training sessions for larger commercial facilities.

9.5 Residential Community, General Public, and School Children

9.5.1 Purpose and Permit Requirements

Purpose

The purpose of this Permit requirement is to educate this target audience on topics aimed at preventing or reducing pollutants from entering the storm drain system.

NPDES Permit Order No. 2001- 01 Requirement(s)

Section F.4.a.

At a minimum the Education Program for each target audience shall contain information on the following topics where applicable:

- State and Federal water quality laws
- Requirements of local municipal permits and ordinances (e.g., storm water and grading ordinances and permits)
- *Impacts of urban runoff on receiving waters*
- Watershed concepts (i.e., stewardship, connection between inland activities and coastal problems, etc.)
- Distinction between MS4s and sanitary sewers
- Importance of good housekeeping (e.g., sweeping impervious surfaces instead of hosing)
- Pollution prevention and safe alternatives
- Household hazardous waste collection
- Recycling
- BMPs: Site specific, structural and source control
- BMP maintenance
- Non-storm water disposal alternatives (e.g., all wash waters)
- Pet and animal waste disposal
- Proper solid waste disposal (e.g., garbage, tires, appliances, furniture, vehicles)
- Equipment and vehicle maintenance and repair
- Public reporting mechanisms
- Green waste disposal
- Integrated pest management
- Native vegetation
- Proper disposal of boat and recreational vehicle waste
- Traffic reduction, alternative fuel use
- Water conservation

Jurisdictional URMP Requirements

The Permit requirement under the Education Component for all Targeted Communities is as follows:

Section H.a.(6)

A description of the content, form, and frequency of education efforts for each target community

- 1) Residential community and general public outreach will be addressed at the local, watershed, and regional levels using the most efficient and effective outreach methods available.
- 2) Residential community and general public outreach will include the data from the Baseline (2001) North San Diego County Storm Water Public Awareness Survey.
- 3) Coordinate and cooperate with Carlsbad Watershed Copermittees to enhance and expand outreach efforts to maximize the positive effects on the environment and water quality in North San Diego County.
- 4) Incorporate and develop storm water information, education, and messages into environmental programs for school children.

9.5.2 Actions

<u>Action #1</u> - Residential community and general public outreach will be addressed at the local, watershed, and regional levels using the most efficient and effective outreach methods available.

The City of Carlsbad initiated its Storm Water Protection Program Outreach Efforts in May 2001 and formed and Outreach Team on July 1, 2001.

City staff initiated efforts and completed the following action items:

- Public Presentations
- Creation of a City Internet Web Site for the Storm Water Protection Program
- Enhancement of the City's Storm Water HOTline
- Creation of Storm Water Protection Program email address
- BMP Brochure development
- General Outreach efforts through printed ads, press releases, media interviews

Brief descriptions of these efforts are shown below as examples of the efforts by the City to reach out to the community. These efforts are scheduled to continue and evolve during the life of the permit, as the program develops and matures.

Public Presentations

Outreach efforts have been conducted using a Power Point presentation prepared by City staff. Presentations have been made for a variety of community groups during regularly scheduled meetings. Storm Water Protection Program presentations have been conducted for the Carlsbad Citizens Academy (October 4, 2001), High Noon Rotary Club of Carlsbad (October 22, 2001), and the League of Women Voters (November 15, 2001). These public presentations will continue to be offered by City staff.

Creation of a City Internet Webpage for the Storm Water Protection Program

The City Outreach Team has developed the first phase of the Storm Water Protection Program Web page, which contains general information about the program, BMPs, useful links, contact information, and other related storm water protection information. The web page will be updated on a regular basis with the most recent information the draft revisions to the proposed Drainage and Grading ordinance, newly developed BMP's for specific commercial, residential, and/or industry activities, and educational information. The Outreach Team mailed postcards and letters to several hundred citizens, contractors and developers, industries, and environmental groups to announce the new webpage. Other items being considered for web page publication are fact sheets, self-inspection checklists for industries and business, employee training resources, and a children's resource section.

Enhancement of the City's Storm Water HOTline

The Storm Water Outreach Team has streamlined and expanded options for citizens calling the City's Storm Water HOTline. The HOTline menu options will be translated into Spanish to accommodate Carlsbad's growing Hispanic population. That phase of the HOTline should be in place Spring 2002.

Creation of Storm Water Protection Program email address

As part of the web page enhancements, a new email address was added to accommodate complaints, requests, and questions via the Internet. Citizens can email the Storm Water Protection Program at stormwater@ci.carlsbad.ca.us. City staff will follow-up and respond to email messages, as necessary.

BMP Brochure Development

The Storm Water Outreach Team began developing BMP booklets in July 2001. The City has produced several BMP booklets covering such topics as general storm water protection, restaurant management, proper use and disposal of motor oil, and car washing. Other BMP booklets under development include topics such as pet waste, landscape and garden care, auto repair, and impervious surface cleaning. BMP booklets will also be developed at the watershed level in collaboration with Watershed Copermittees. The City will review regional outreach efforts in order to supplement local outreach.

General Outreach efforts through printed ads, press releases, media interviews

Storm water information is available to the community via the Internet and several articles have been published in local newspapers and bulletins. City staff has issued press releases to the media regarding ordinance revisions. The press releases and subsequent interviews lead to published articles in the North County Times, San Diego Union Tribune, Coast News, and the Carlsbad Community Services and Recreation Guide. Efforts of this type are considered valuable and will continue to be a part of the outreach effort. The City's plan is to continue these efforts and identify additional methods to cover the required topics listed in the Permit requirement.

<u>Action #2</u> - Residential community and general public outreach will include data from the Baseline (2001) North San Diego County Storm Water Public Awareness Survey.

The City of Carlsbad spearheaded an effort to collect baseline data from the North County public on storm water related issues. The Baseline (2001) North San Diego County Storm Water Public Awareness Survey was completed for the Carlsbad Watershed Copermittees in January 2002. The survey will be used as a tool to customize outreach efforts both at the watershed and local level. The survey results were tabulated for the North County area and for each individual city. The survey data will help to identify outreach efforts that are beneficial to the entire watershed, as well as those appropriate at the local level.

The City of Carlsbad has also collected data on storm water related issues through its annual 2001 Public Opinion Survey. This survey and the Baseline Survey will be used to assess future outreach priorities.

$\underline{\text{Action } \#3}$ - Coordinate and cooperate with Carlsbad Watershed Copermittees to enhance and expand outreach efforts to maximize the positive effects on the environment and water quality in North San Diego County

The Carlsbad Watershed Copermittees first collaborative outreach effort was the 2001 Baseline survey. The Watershed Copermitees have informally agreed to continue working together and monthly meetings are planned to develop an outreach plan for the watershed. Carlsbad Watershed Copermittees are currently working on several outreach projects including storm water "door hangers" and a General BMP booklet. Other projects will be identified as the group reviews the results of the Baseline survey.

<u>Action #4 -</u> Incorporate and develop storm water information, education, and messages into environmental programs for school children.

Outreach efforts for school-age children will be addressed by the Carlsbad Watershed Outreach group. The most effective method to reach across city jurisdictional boundaries will be to work on broad, collaborative efforts. Most cities have existing programs related to water conservation organized by the North County Water Agencies. These existing programs will be reviewed to identify effective way to incorporate storm water protection messages and information for school children. City staff will consider additional local outreach efforts in the upcoming year. The first phase will focus on identifying existing community programs, library or community displays, and community events that can incorporate storm water information.

The City's initial effort will identify opportunities for school programs by organizing a calendar of events, reviewing school curriculums, and discussing outreach programs with environmental educators. Materials and resources for children will be researched and evaluated to determine if they are consistent with the needs of the community and the schools. An implementation plan will be developed after the initial phase is completed.

9.6 Quasi-Government Agencies/Districts (i.e. educational institutions, water districts, sanitation districts, etc.).

9.6.1 Purpose and Permit Requirements

Purpose

The purpose of this Permit requirement is to educate this target audience on topics aimed at preventing or reducing pollutants from entering the storm drain system.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirement under the Education Component is as follows: Section F.4.a.

At a minimum the Education Program for each target audience shall contain information on the following topics where applicable:

- State and Federal water quality laws
- Requirements of local municipal permits and ordinances (e.g., storm water and grading ordinances and permits)
- Impacts of urban runoff on receiving waters
- Watershed concepts (i.e., stewardship, connection between inland activities and coastal problems, etc.)
- Distinction between MS4s and sanitary sewers
- Importance of good housekeeping (e.g., sweeping impervious surfaces instead of hosing)
- Pollution prevention and safe alternatives
- Household hazardous waste collection
- Recycling
- BMPs: Site specific, structural and source control
- BMP maintenance
- Non-storm water disposal alternatives (e.g., all wash waters)
- Pet and animal waste disposal
- Proper solid waste disposal (e.g., garbage, tires, appliances, furniture, vehicles)
- Equipment and vehicle maintenance and repair
- Public reporting mechanisms
- Green waste disposal
- Integrated pest management
- Native vegetation
- Proper disposal of boat and recreational vehicle waste
- Traffic reduction, alternative fuel use
- Water conservation

Section F.4.b.

In addition to the topics listed in F.4.a. above, the Municipal, Construction, Industrial, Commercial, and Quasi-Governmental (Educational Institutions, Water Districts, Sanitation Districts) Communities shall also be educated on the following topics where applicable:

- Basic urban runoff training for all personnel
- Additional urban runoff training for appropriate personnel

- Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
- Lawful disposal of catchbasin and other MS4 cleanout wastes
- Water quality awareness for Emergency/First Responders
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction).
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
- SDRWQCBs General NPDES Permit for Groundwater Dewatering
- 401 Water Quality Certification by the SDRWQCB
- Statewide General NPDES Utility Vault Permit (NPDES No. CAG990002)
- SDRWQCB Waste Discharge Requirements for Dredging Activities
- Local requirements beyond statewide general permits
- Federal, state and local water quality regulations that affect development projects
- Water quality impacts associated with land development
- Alternative materials & designs to maintain peak runoff values
- How to conduct a storm water inspection
- Potable water discharges to the MS4
- Dechlorination techniques
- Hydrostatic testing
- Spill response, containment, & recovery
- Preventive maintenance

How to do your job and protect water quality

Jurisdictional URMP Requirements

The Permit requirement under the Education Component for all Targeted Communities is as follows: Section H.a.(6)

A description of the content, form, and frequency of education efforts for each target community

- 1) Identify and classify (commercial or industrial) quasi-government agencies within the City jurisdiction and verify inspection program priorities (high, medium, low).
- 2) Assess outreach and education efforts within context of industrial, commercial, or municipal inspection program.
- 3) Develop outreach efforts needed for this target audience that may not already be covered under existing outreach audiences in this JURMP.

9.6.2 Action Plan

It is anticipated that most of the quasi-government agencies within the City of Carlsbad will fall under one of the existing commercial or industrial classification categories of high, medium, or low priority, based on the criteria used to identify facilities and "businesses".

For example, as a result of the thorough review of all businesses and industries in Carlsbad (See Industrial and Commercial Components for details), activities at the Encina Wastewater Plant have been captured under the inspection program. The Encina Wastewater Authority, the regional wastewater treatment plant for the North County, is listed as a "High Priority" industrial facility. Outreach and education for this facility would be identified during the initial inspection of the facility. As such, this facility's outreach and education efforts would be addressed as described for the Industrial component.

<u>Action #1</u> - Identify and classify (commercial or industrial) quasi-government agencies within the City jurisdiction and verify inspection program priorities (high, medium, low).

City staff will verify if the quasi-government agency was captured by the initial classification of businesses and industries as 'high, medium or low" priority. A cursorily review has found that the most significant "facilities" are included in the inspection priority list. A thorough review will be conducted to verify agencies whose operations would not be covered under the commercial and industrial inspection program. Outreach efforts would then be addressed by either Actions #2 or #3 below.

<u>Action #2</u> - Assess outreach and education efforts within context of industrial, commercial or municipal inspection program.

As commercial and industrial inspections are conducted, it is anticipated that the outreach methods described for those audiences will be used for activities or facilities for quasi-government agencies. In some cases, there may be opportunities to combine outreach and BMP information from the Municipal program into the quasi-government audience, for similar operations, to simplify implementation. Storm Water Protection Program staff will assess the need for specific outreach and education efforts that may not otherwise already be covered by other outreach programs.

<u>Action #3</u> - Develop outreach efforts needed for this target audience that may not already be covered under existing outreach audiences in this JURMP.

When the need arises for customized outreach materials or special BMPs, staff will review the available resources and develop materials, as needed, to address the specific activity. It is anticipated that the majority of materials for the quasi-government audience will be applicable to the industrial, commercial or municipal audiences.